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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,433	07/29/2003	Michael J. Connor	4191-00318	6029

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EXAMINER

BETTS JR, ROGER D

ART UNIT	PAPER NUMBER
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1723

DATE MAILED: 08/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/629,433	Applicant(s) CONNOR ET AL.	
	Examiner Roger D. Betts Jr.	Art Unit 1723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12/13/2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Grant et al. (U.S. Patent No. 3,524,550). In view of Claim 1, Grant (550) discloses a filter comprising first and second axially spaced end caps (Fig. 1, 31-32) with a filter media (Fig. 1, 19) extending axially between said end caps extending in a close-loop, wherein at least one column (Fig. 1, 21) extending axially between said end caps and spaced from said axial opening having a sub interior for a post (Fig. 1, 23) extending from a base (Fig. 1, 24). Grant (550) also discloses a post applying axial compression between end caps (Fig. 1, 31-32) and column supports (Fig. 1, encompassing both sides of filter element (19) without the need for inner and outer filter media liners (claim 2), wherein filter media has no inner or outer liner (Fig. 1) (claim 3), wherein second end cap is adjacent to said base (Fig. 1, item 24 meets with item 32) and post extending axially column sub-interior to first end cap (Fig. 1, 23) (claim 4). Grant (550) also discloses a filter comprising a seal of said filter media to block contaminant (Fig. 1, 38) (claim 5) and a seal located on filter element (Fig. 1, 31) (claim 6).

***Claim Rejections - 35 USC § 103***

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness
2. Claims 7-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grant et al. (U.S. Patent No. 3,524,550) in view of Kitson (U.S. Patent No. 5,053,129). Grant (550) discloses a filter comprising first and second axially spaced end caps (Fig. 1, 31-32) with a filter media (Fig. 1, 19) extending axially between said end caps extending in a close-loop, wherein at least one column (Fig. 1, 21) extending axially between said end caps and spaced from said axial opening having a sub interior for a post (Fig. 1, 23) extending from a base (Fig. 1, 24) (claim 1), a post applying axial compression between end caps (Fig. 1, 31-32) and column supports (Fig. 1, encompassing both sides of filter element (19)) without the need for inner and outer filter media liners (claim 2), wherein filter media has no inner or outer liner (Fig. 1) (claim 3), wherein second end cap is adjacent to said base (Fig. 1, item 24 meets with item 32) and a post extending axially column sub-interior to first end cap (Fig. 1, 23) (claim 4)

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and a seal to block contaminant (Fig. 1, 38) (claim 5) and a seal located on filter element (Fig. 1, 31) (claim 6).

However, Grant (550) fails to disclose a column comprising first and second sleeves extending towards each other, wherein one of said sleeves has a sealing bead (claim 7), a filter sleeves engage each other at a junction having an inner and outer portion facing said inner surface of outer sleeve portion sealed by annular sealing bead (claim 8), wherein seal bead is on inner surface (claim 9) and first end cap and first sleeve are molded and second end cap and second sleeve are molded (claim 10), and a filter wherein column comprises first and second sleeves extending from first and second end caps towards each other wherein one of sleeves having a stop engaging the other sleeve (claim 11).

3. Kitson (129) teaches a column comprising first and second sleeves engaging each other in overlapped telescoped relation (Fig. 2, 26,38), wherein one of said sleeves having an annular sealing bead (encompassing Fig. 1, 38,40) (claim 7). ((The helix thread of the combination of 38 and 40 serves as an annular sealing bead along the axis 16 to block contaminant flow (claim 7)) and wherein filter sleeves engage each other at a junction having an inner and outer portion facing said inner surface of outer sleeve portion sealed by sealing bead (Fig. 1, abutment of 38 and 40) (claim 8), and sealing bead is on inner surface of outer sleeve portion (Fig. 1, helix thread portion of 26) (claim 9), wherein first end and first sleeve are molded first singular piece (Fig. 1, 26, 38, 68) and second end and second sleeve are molded second singular piece (Fig. 1, 26, 28, 66)(claim 10) and one of said sleeves having a stop engaging the other sleeve

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(Fig. 1, 38 meets Fig. 1, 26)(claim 11) . It would have been obvious to one of ordinary skill in the art at the time of the invention to manufacture the Grant (550) invention in view of the teachings of Kitson (129), in which the filter element configuration can be used in many different housings wherein flow contaminant is blocked.

4. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Grant (U.S. Patent No. 3,524,550) and Kitson (U.S Patent No. 5,053,129), applied to claim 1 above, and further in view of Gachot (U.S. Patent No. 3,578,014). Grant (550) as modified by Kitson (129) discloses a filter comprising first and second axially spaced end caps having at least one column extending axially in said hollow interior between said end caps having a sub-interior for receiving a post from a base (claim 1)

However, Grant (550) as modified by Kitson (129) fails to disclose an air filter comprising an O-ring sealing (claim 12). Gachot (014) teaches an air filter that comprises an O-ring sealing (Fig. 3, 35). It would have been obvious to one of ordinary skill in the art at the time of the invention to manufacture the Grant (550) as modified by Kitson (129) invention in view of the teachings of Gachot (014) in which the air filter utilizes an O-ring sealing to provide an air tight seal for a closed loop air filter to prevent air flow leakage.

5. Claim 13-17 is rejected under 35 U.S.C 103(a) as being unpatentable over Grant (U.S. Patent No. 3,524,550) as modified by Kitson (U.S. Patent No. (5,053,129) and Gachot (U.S. Patent No. 3,578,014) in further view of Lentz (U.S. Patent No. 1,861,805). Grant (550) as modified by Kitson (129) and Gachot (014) invention fails to disclose a filter comprising first and second axially spaced end caps with a filter media

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extending axially between said end caps extending in a close-loop, wherein at least one column extending axially between said end caps and spaced from said axial opening having a sub interior for a post extending from a base, wherein the posts apply axial compression force between end caps (claim 13). Grant (550) as modified by Kitson (129) and Gachot (014) invention also fails to disclose a pair of seals provided to seal sub-interior of said filter media (claim 14) wherein said columns comprise third and fourth sleeves. However, Lentz (U.S. Patent No. 1,861,805) discloses a filter comprising first and second axially spaced end caps (Fig. 1, 9-10) with a filter media extending axially between said end caps extending in a close-loop (Fig. 1, 37) wherein at least one column extending axially between said end caps (Fig. 1, 41) and spaced from said axial opening having a sub interior for a post (Fig. 1, 31) extending from a base (Fig. 1, 11) wherein the posts apply axial compression force between end caps (Fig. 1, 31) (claim 13) and a gasket (Fig. 1, 29) that serves as a pair of seals for sealing filter media (claim 14) and columns for comprising third and fourth sleeves (Fig. 1, 41) (claim 15) in which third and fourth sleeves engages each other in an axially overlapped telescoped relation having a sealing bead (claim 16) wherein one of said first and second sleeves has a stop engaging the other first or second sleeve providing said axial compression force (claim 17).

It would have been obvious to one of ordinary skill in the art at the time of the invention to manufacture Grant (550) as modified by Kitson (129) and Gachot (014) invention in view of the teachings of Lentz (805) in which the air filter is designed to permit the functioning of the filtering element throughout its entire length and constructed that it

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may be easily removed and replaced with a pair of seals to provide an air-tight seal, wherein third and fourth sleeves (claim 15) of Grant (550) as modified by Kitson (129) and Gachot (014) invention could be replaced with said columns of Lentz (805) (Fig. 1, 41). It would also been obvious to manufacture the Grant (550) as modified by Kitson (129) and Gachot (014) invention in view of Lentz (805) in which the structure allows for third and fourth sleeve configuration engaging each other in a overlapped telescoped relation (claim 16) and first or second sleeves providing axial compression force (claim 17).

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roger D. Betts Jr. whose telephone number is (571) 272-8153. The examiner can normally be reached on Monday-Friday from 7:30 a.m. to 4:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda Walker, can be reached on (571) 272-1151. The fax phone number for the organization where this application or proceeding is assigned is (571) 272-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
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